

200400271

THE UNIVERD STRATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS; SHALL COME:

Emergent Genetics, Inc.

THEIRS, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE THE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) FOR THE TERM OF TWENTY THAT SAID APPLICANT(S) FOR THE TERM OF TWENTY THAT SERVICE AND THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC SEPLENISTMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE SET TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR SING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE TURPOSE, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

COTTON

'ST 5242BR'

In Testimonn Morrest, I have hereunto set my hand and caused the seal of the Mant Anciety Protection Office to be affixed at the City of Washington, D.C. this first day of March, in the year two thousand and five.

Allest:

Commissioner
Plant Variety Protection Office

Plant Variety Protection Office Agricultural Marketing Service g of Agriculture

REPRODUCE LOCALLY. Include form number & date on all reproductions. Form Approved - OMB No. 0581-0055						
U.S. Department of Agricultural Marketing Se	rvice	The follow U.S.C.55	The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C.552a) and the Paperwork Reduction Act (PRA) of 1995.			
Science & Technology Plant Variety Protection Office APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE (Instructions & information collection burden statement on reverse)			Application is required in order to determine if a plant variety protection certificate is to be			
Name of Owner			orary Designation or	3. Variety Name		
Emergent Genetics, Inc.			mental Name STX5242BR	ST 5242BR		
4. Address (Street & No., or R.F.D. No., City, State & ZIP Code,	and County	5. Telept	one (include area code)	FOR OFFICIAL USE ONLY		
6625 Lenox Park Drive, Suite 117			01-375-5800	PVPO Number 0 0400271		
Memphis, TN 38115		8. FAX (ii	nclude area code)			
USA		90	01-375-5860	Filing Date		
7. If the Owner Named is Not a 'Person', Give Form of Organization	on (corporation, partnership,	9. Date o	f Incorporation	07/15/2004		
association, etc.) Corporation	·	Dec	ember 9, 1999	0 1307200 7		
10. Name & Address of Owner Representative(s), to serve in this	application	I		I Filing & Examination Fees		
(First person listed will receive all papers)				\$ 3,652.00		
Lloyd L. McCall, Ph.D.	,			3,002.00		
6625 Lenox Park Drive,				Date: 07/15/04		
Suite 117				Certification Fee:		
Memphis, TN 38115	•			1 432,00		
Mempris, 114 30 113				Date: 08/03/04		
11. Telephone (Include area code)	12. Fax (Include	area code)	13. E-Mail	14. Crop Kind (common name)		
901-375-5869	901-37	75-5860	lmccall@emerge	entgenet cotton		
15. Genus & Species Name of Crop		16. Family Name ((botanical)	17. Is the Variety a First Generation		
Gossypium hirsutum			lalvaceae	Hybrid?		
osso) plani imodiani		''	laivaceae	Yes 🛛 No		
18. Check appropriate box for each attachment submitted (follow	nstructions on reverse))			is variety be sold as a class of certified seed?		
a. Exhibit A: Origin and Breeding History of the Variet	y	(See Section	on 83(a) of the Plant Variety	, <u> </u>		
b. 🔀 Exhibit B: Statement of Distinctness			└── Yes (If 'yes', answer items 20 & 21			
c. 🔀 Exhibit C: Objective Description of Variety		20. Does the o	20. Does the owner specify that seed of this variety be limited as to number of generations?			
d. Exhibit D: Additional Description of the Variety (Opt	•		Yes	□ No		
e. Knibit E: Statement of the Basis of the Owner's O	·	24 1543/				
 Exhibit F: Voucher Sample (2,500 viable untreated varieties, verification that tissue culture will be deposited and 	seeds or, for tuber propagated maintained in an approved		21. If "Yes" to Item 20, which classes of production beyond breeder seed?			
public repository)			oundation i	Registered Certified		
g.	to "Treasurer of the United States"					
22. Has the variety (including any harvested material) or a hybrid produced from this variety been sold, disposed of, transferred, or used in the U.S. or other countries?			 Is the variety or any component of the variety protected by intellectual property right (Plant breeder's right or patent)? 			
⊠ Yes	□ No	⊠ ›	'es	□ No		
If yes, you must provide the date of first sale, disposition, transfer, or use for each country and the circumstances. (Please use space indicated on reverse.)			If yes, please give country, date of filing or issuance, and assigned reference number. (Please use space indicated on reverse.)			
24. The owners declare that a viable sample of basic seed of the applicable, or for a tuber propagated variety a tissue culture	e variety will be furnished with applica will be deposited in a public repositor	ation and will be reple rv and maintained for	nished upon request in acc	ordance with such regulations as may be		
applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate. The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42 and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.						
Owner(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.						
Signature of Owner	Signature of Owner Signature of Owner					
Af I M & Call						
Name (Please print or type)			Name (Please print or type)			
Lloyd McCall						
Capacity or Title	Date	Capacity or Title		Date		
Director of U.S. Research and	June 30, 2004					
Development						

Instructions

General: To be effectively filed with the Plant Variety Protection Office (PVPO), ALL of the following items must be received in the PVPO: (1) Completed application form signed by owner; (2) Completed exhibits A, B, C, E; (3) For a seed reproduced variety, at least 2,500 viable untreated seeds; for a hybrid variety, at least 2,500 untreated seeds of each line necessary to reproduce the variety; or for tuber reproduced varieties, verification that a viable (in the sense that it will reproduce an entire plant) tissue culture will be deposited and maintained in an approved public repository; (4) Check drawn on a U.S. Bank for \$2,705 (\$320 filing fee and \$2,385 examination fee) payable to "Treasurer of the United States" (See Section 97.6 of the Regulations and Rules of Practice). Partial applications will be held in the PVPO for not more than 90 days, then returned to the applicant as unfilled. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 500, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. Retain one copy for your files. All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initialed and dated. DO NOT use masking materials to make corrections. If a certificate is allowed, you will be requested to send a check payable to "Treasurer of the United States" in the amount of \$320 for issuance of the certificate. Certificates will be issued to owner, not licensee or agent.

Plant Variety Protection Office Telephone: (301) 504-5518 FAX: (301) 504-5291

Homepage: http://www.ams.usda.gov/science/pvp.htm

ITEM:

- 18a. Give: (1) The genealogy, including public and commercial varieties, lines, or clones used, and the breeding method.
 - (2) The details of subsequent stages of selection and multiplication.
 - (3) Evidence of uniformity and stability; and,
 - (4) The type and frequency of variants during reproduction and multiplication and state how these variants may be identified.
- 18b. Give a summary of the variety's distinctness. Clearly state how this application, variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:
 - (1) Identify these varieties and state all differences objectively.
 - (2) Attached statistical data for characters expressed numerically and demonstrate that these are clear differences, and,
 - (3) Submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.
- 18c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.
- 18d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, etc.
- 18e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.
- 19. If "Yes" is specified (seed of this variety be sold by variety name only, as a class of certified seed), the applicant MAY NOT reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice (See Regulations and Rules of Practice, Section 97.103).
- 22. See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.
- 23. See Section 55 of the Act for instructions on claiming the benefit of an earlier filing date.
- 21. CONTINUED FROM FRONT (Please provide a statement as to the limitation and sequence of generations that may be certified.)
- 22. CONTINUED FROM FRONT (Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety (including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)

February, 2004

23. CONTINUED FROM FRONT – (Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right {Plant Breeder's Right or Patent}.)

USA 5,164,316 5,352,605 5,500,365 5,352,605 5,728,925 5,196,525 5,359,142 4,940,835 5,633,435 5,804,425 5,322,938 5,424,200 5,188,642 5,717,084

NOTES: It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's representative during the life of the application/certificate. There is no charge for filing a change of address. The fee for filing a change of ownership or assignment or any modification of owner's name is specified in Section 97.175 of the regulations. (See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of the Regulations and Rules of Practice.)

To avoid conflict with other variety names in use, the applicant must check the appropriate recognized authority. For example, for agricultural and vegetable crops, contact: Seed Branch, AMS, USDA, Room 213, Bullding 306, Beltsville Agricultural Research Center - East, Beltsville, MD 20705. Telephone: (301) 504-8089. http://www.ams.usda.gov/isg/seed/is-sd.htm

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 3.0 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in its programs on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, sexual orientation, or marital or family

To file a complaint of discrimination, write the USDA Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, D.C. 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

Exhibit A: Origin and Breeding History

Variety: ST 5242BR

ST 5242BR was derived from a backcross breeding program with the experimental cotton variety 6M021 (LA 887/ DPL 5415) as the recurrent parent. The initial cross to incorporate Monsanto's Roundup Ready® (transgenic event 1445) and Bollgard® (transgenic event 531) genes and subsequent backcrosses were conducted by Monsanto.

In 1999, the self-pollinated BC4F1 seed was delivered to Stoneville Pedigreed Seed (now known as Emergent Genetics, Inc.) to plant the BC4F2 population. Plants were screened for the presence of both events. Plant that were positive for both events were selected and planted in South Africa in as BC4F3 progeny rows in 2000. The progeny rows were screened in South Africa to confirm homozygosity for the Bollgard® and Roundup Ready® genes.

At maturity the BC4F3 progeny rows were visually evaluated for resemblance to the recurrent parent. Individual plants and bulks were harvested from rows that were homozygous for the transgenes and resembled the recurrent parent. The individual plants were grown as progeny rows in Stoneville, MS, in May 2000, and evaluated for purity of the transgenes and agronomic traits. The bulk seed was used to conduct replicated trials to evaluate yield, fiber traits, and visual agronomic comparisons of the selected rows versus the recurrent parent and ST 4892BR.

Data gathered from the 2000 and 2001 replicated testing and purity evaluations identified lines that looked and performed similar to the recurrent parent. These lines were evaluated further in 2002 replicated testing and evaluated for purity standards. ST 5242BR is a blend of these lines.

Maintenance of the Variety

The variety will be maintained through pure line maintenance of breeder seed and production of foundation and registered classes of seed.

Statement of Uniformity and Stability

ST 5242BR has been evaluated in many environments from 2000 to 2003 across the cotton belt by the staff of Emergent Genetics, Inc. and many public researchers. No off-types were detected and no variants were noted in the variety.

During this four year evaluation period, ST 5242BR was uniform and stable.

Exhibit B: Statement of Distinctness

Variety: ST 5242BR

ST 5242BR has an indeterminate plant growth habit and has a strong, erect central stem. ST 5242BR is most similar to ST 4892BR; however, it has larger seed.

Trait ST 5	242BR ST 4892BR
Number of seed per pound 4053	* 4476

^{*} Values are means from replicated trials conducted in Texas and Arizona during 2003. Trials were conducted using a randomized complete block experimental design with four replications at each location.

Public reporting burden for this collection of information is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Agriculture, Clearance Officer, OIRM, AG Box 7630, Jamie L. Whitten Building, Washington, D.C. 20250. When replying, refer to OMB N. 0581-0055 and form number in your letter. Under the PRA of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

The U.S. Department of Agriculture (USDA) prohibits discrimination in its programs on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, and marital or familial status. (Not all prohibited bases apply to all programs). Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact the USDA Office of Communications at (202) 720-2791. To file a complaint, write the Secretary of Agriculture, U.S. Department of Agriculture, Washington, D.C. 20250, or call (202) 720-7327 (voice) or (202) 720-1127 (TDD). USDA is an equal opportunity employer.

EXHIBIT C (COTTON)

U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE SCIENCE AND TECHNOLOGY PLANT VARIETY PROTECTION OFFICE BELTSVILLE, MD 20705

OBJECTIVE DESCRIPTION OF VARIETY COTTON (Gossypium spp.)

NAME OF APPLICANT(S):			EMPORAR		VARII	ETY NAME:
Emergent Genetics, Inc.			DESIGNATION: STX5242BR		ST 52	42BR
					0102	- Acres
ADDRESS (Street and No., or R.F.D. No.	. City. State, & ZIP Cor	je).		FO	OFFIC	DIAL USE ONLY
•	, 119, 11111, 11111	.0,.		PVI	O NUM	IBER
6625 Lenox Park Dr., Suite 117 Memphis, TN 38115				2	n n	4 n n n - 9
mompine, 117 do 110					y v	400271
Place the appropriate data that describes	the varietal characteris		-df111		<u> </u>	· · · · · · · · · · · · · · · · · · ·
Place the appropriate data that describes including numerical measurements, shou	d represent those that	are tvoical foi	the variety	Royal Horticul	tural So	ciety or any
recognized color ran may be used to dete	rmine plant colors. Ch	aracters mark	ed with an	asterisk (*) ind	icate ne	cessary characters to
pe measured.						-
SPECIFIC VARIETIES USED FOR COMP varieties which are adapted to your area.	ARISON AS CHECK \ One of the comparisor	/ARIETIES IN	! THIS APP	LICATION: (Us	e standa	ard regional check
randada imion ara adaptoa to your area.	One of the compansor	i valleties illu	st be the m	ost similar varie	ty usea	in Exnibit B.
Variety 1: ST 4892BR	Variety 2:			Variety		
	<u></u>			3:		
					•	
* 1. SPECIES: X	G. hirsutum L.			G.	barbade	ense L.
				G.	barbade	ense L.
* 1. SPECIES: X * 2. AREA(S) OF ADAPTATION: (A = Ad			Tested)	G.	barbade	nse L.
* 2. AREA(S) OF ADAPTATION: (A = Adaptation)		ted, NT = Not	Tested)		barbade A	ense L. Blacklands
* 2. AREA(S) OF ADAPTATION: (A = Adaptation		ted, NT = Not	Tested) A	G. Central Arizona	barbade A	·
* 2. AREA(S) OF ADAPTATION: (A = Adaptation)		ted, NT = Not	Tested) A A	Central	barbade	Blacklands
* 2. AREA(S) OF ADAPTATION: (A = Adaptation	dapted, NA = Not Adap A A	ted, NT = Not Delta Western	A	Central Arizona	_A	Blacklands San Joaquin
* 2. AREA(S) OF ADAPTATION: (A = Adaptation	dapted, NA = Not Adap A A	ted, NT = Not Delta Western	A	Central Arizona	_A	Blacklands San Joaquin
* 2. AREA(S) OF ADAPTATION: (A = Adaptation A Eastern Plains Other (Specify) 3. GENERAL: Characteristics which are	dapted, NA = Not Adap A A known to be variable, b	ted, NT = Not Delta Western ut are still use	A A eful for a me	Central Arizona	A	Blacklands San Joaquin
* 2. AREA(S) OF ADAPTATION: (A = Adaptation A	dapted, NA = Not Adap A A known to be variable, b	ted, NT = Not Delta Western ut are still use	A A eful for a me	Central Arizona eaningful descri	A	Blacklands San Joaquin variety.
* 2. AREA(S) OF ADAPTATION: (A = Adaptation A Eastern Plains Other (Specify) 3. GENERAL: Characteristics which are	dapted, NA = Not Adap A A known to be variable, b Application Variety Intermediate	ted, NT = Not Delta Western ut are still use Comparisor Intermediate	A A eful for a me	Central Arizona eaningful descri	A	Blacklands San Joaquin variety.
* 2. AREA(S) OF ADAPTATION: (A = Adaptation A	dapted, NA = Not Adap A A known to be variable, b Application Variety Intermediate Intermediate	ted, NT = Not Delta Western ut are still use	A A eful for a me	Central Arizona eaningful descri	A	Blacklands San Joaquin variety.
* 2. AREA(S) OF ADAPTATION: (A = Adaptation A	dapted, NA = Not Adap A A known to be variable, b Application Variety Intermediate	ted, NT = Not Delta Western ut are still use Comparisor Intermediate	A A eful for a me	Central Arizona eaningful descri	A	Blacklands San Joaquin variety.
* 2. AREA(S) OF ADAPTATION: (A = Adaptation	dapted, NA = Not Adap A A known to be variable, b Application Variety Intermediate Intermediate Erect	Delta Western ut are still use Comparisor Intermediate Intermediate	A A eful for a me	Central Arizona eaningful descri	A	Blacklands San Joaquin variety.
* 2. AREA(S) OF ADAPTATION: (A = Adaptation A	dapted, NA = Not Adap A A known to be variable, b Application Variety Intermediate Intermediate	ted, NT = Not Delta Western ut are still use Comparisor Intermediate Intermediate	A A eful for a me	Central Arizona eaningful descri	A	Blacklands San Joaquin variety.

3. GENERAL: (Continued)

	Application Variety	Comparison Variety 1	Comparison Variety 2	Comparison Variety 3
Growth: Determinate, Intermediate, Indeterminate	Intermediate	Intermediate		
Leaf Color: Greenish yellow, Light green, Medium green, Dark green	Light Green	Light Green		
Bolf Shape: Length less than width, Length equal to width, Length more than width	Length>Width	Length>Width		
Boll Breadth: Broadest at base, Broadest at middle	Base	Base		
*4. MATURITY: (50% Open bolls; Preferred r	nethod; Describe method in	f different method was used	(,)	
Date of 50 % open bolls 5. PLANT:				
Cm to 1 st Fruiting Branch: (from cotyledonary node) No. of Nodes to 1 st Fruiting Branch:	14.95	14.60		
(excluding cotyledonary node)	5.9	6.1		
Mature Plant Height cm: (from cotyledonary node to terminal)	80.8	82.3		·
* 6. LEAF: Upper most, fully expanded leaf.	1	1		
Type: Normal, Sub Okra, Okra, Super Okra	Normal	Normal		
Pubescence: Absent, Sparse, Medium, Dense <u>OR</u> Trichomes/cm ² (Bottom surface excluding veins)	Medium	Dense		
Nectaries: Present or Absent	Present	Present		-
* 7. STEM PUBESCENCE Glabrous, Intermediate, Hairy	Intermediate	Hairy		
*8. GLANDS: (Gossypol) Absent, Sparse, Nor		1		*
Leaf:	Normal	Normal		
Stem:	Medium	Sparse		
Calyx Lobe: (normal is absent)	Normal	Normal		. 102-
*9. FLOWER;	1	1		-
Petals: Cream, Yellow	Cream	Cream		
Pollen: Cream, Yellow	Cream	Cream		
Petal Spot: Present, Absent	Absent	Absent		1100

10. SEED:	Application Variety	Comparison Variety 1	Comparison Variety 2	Comparison Variety 3
Seed Index: (g/100 seeds, fuzzy basis)	12.2	10.7		146
Lint Index: (g lint/100 seeds)	8.4	8.0		
11. BOLL:				
Lint Percent: Picked Pulled				
OR			•	
Gin Turnout: x Picked Stripped	0.42	0.42		
Number of Seeds per Boll:	32.7	31.1		
Grams Seed Cotton per Boll:	6.7	5.8		
Number of Locules per Boll:	4	4		
Boll Type: (Stormproof, Storm Resistant, Open) 12. Fiber Properties:	Open	Open		
Specify Method (HVI or other)				
*Length: (inches, 2.5% SL)				
	1.10	1.07		
*Uniformity: (%)	84.0	83.8		
*Strength, T1 (g/tex)	23.2	25.2		
*Elongation, E1 (%)	6.5	6.0		***
*Micronaire:	4.1	4.3		
Fineness (Source)				
Yarn Tenacity: (cN/tex, 27 tex) Yarn Strength: (lbs. 22's)				
13. DISEASES: (NT = Not Tested, S = Suscep NT Alternaria macrospora NT Anthracnose NT Ascochyta Blight NT Bacterial Blight (Race 1) NT Bacterial Blight (Race 2) NT Bacterial Blight (Race)	tible, MS = Moderately su	NT Fus NT Phy NT Pyt NT Rhi NT Sou	I ly Resistant, R = Resistant) sarium Wilt ymatotrichum Root Rot thium (specify species) izoctonia solani uthwestern Cotton Rust elayiopsis basicola	
13. DISEASES: (continued) NT = Not Tested,	S = Susceptible, MS = Me	oderately susceptible, MR	= Moderately Resistant, R	= Resistant
NT Diplodia Boll Rot Other (specify)		<u>N</u> T Ver	ticillium Wilt	
14. NEMATODES, INSECTS, AND PESTS: (I R = Resistant)	NT = Not Tested, S = Sus	ceptible, MS = Moderately	susceptible, MR = Moderat	tely Resistant,
NT Root-Knot Nematode NT Boll Weevil MR Bollworm NT Cotton Aphid NT Cotton Fleahopper NT Cotton Leafworm NT Cutworm (specify species): NT Fall Armyworm Other (specify):		NT Gra NT Lyg R Pinl NT Spic NT Stin NT Thri	niform Nematode sshopper (specify species) us (specify species) k Bollworm der Mite (specify species) k Bug (specify species) ips (specify species) acco Bud Worm)

^{15.} COMMENTS: Present any additional information that cannot adequately be described in 1 through 13 which significantly distinguishes your variety.

ST 5242BR contains Monsanto's Bollgard® and Roundup Ready® technologies

Exhibit D: Additional Description of the Variety

Variety: ST 5242BR

Supporting information for Exhibit B.

	e a poete complete est en doct de La complete de la co	Number of se	ed per pound	
YEAR	LOCATION	ST5242BR	ST4892BR	LSD0.05
2003	Arizona	3770	4281	17.4
2003	Texas	4336	4670	30.2
	MEAN	4053	4476	

^{*} Values are means from replicated trials. Trials were conducted using a randomized complete block experimental design with four replications at each location.

REPRODUCE LOCALLY. Include form number and edition date on all reproductions. FORM APPROVED - OMB No. 0581-0055 U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). The information is held **EXHIBIT E** confidential until the certificate is issued (7 U.S.C. 2426). STATEMENT OF THE BASIS OF OWNERSHIP 1. NAME OF APPLICANT(S) 2. TEMPORARY DESIGNATION 3. VARIETY NAME OR EXPERIMENTAL NUMBER Emergent Genetics, Inc. STX5242BR ST 5242BR 4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP, and Country) 5. TELEPHONE (Include area code) 6. FAX (Include area code) 901-375-5800 901-375-5860 6625 Lenox Park Drive Suite 117 7. PVPO NUMBER Memphis, TN 38115 0400271 USA 8. Does the applicant own all rights to the variety? Mark an "X" in the appropriate block. If no, please explain. □ NO 9. Is the applicant (individual or company) a U.S. national or a U.S. based company? If no, give name of country. ▼ YES NO 10. Is the applicant the original owner? ✓ YES □ NO If no, please answer one of the following: a. If the original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. National(s)? YES ☐ NO If no, give name of country b. If the original rights to variety were owned by a company(ies), is (are) the original owner(s) a U.S. based company? ☐ YES □ NO If no, give name of country 11. Additional explanation on ownership (If needed, use the reverse for extra space): PLEASE NOTE: Plant variety protection can only be afforded to the owners (not licensees) who meet the following criteria: 1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.

- If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.
- 3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed the final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definitions.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 0.1 hour per response, including the time for reviewing the instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or familial status. (Not all prohibited bases apply to all programs). Persons with disabilities who require alternative means for communication of program information (braille, large print, audiotape, etc.) should contact the USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, D.C. 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.